



UNITED STATES PATENT AND TRADEMARK OFFICE

AVD
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,805	02/13/2001	Peter G R Smith	124-838	9678

7590 07/25/2002
Nixon & Vanderhye
8th Floor
1100 North Glebe Road
Arlington, VA 22201-4714

EXAMINER

ZARROLI, MICHAEL C

ART UNIT PAPER NUMBER

2839

DATE MAILED: 07/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,805

Applicant(s)

SMITH ET AL.

Examiner

Michael C. Zaroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-5, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 9.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. Objections have been overcome.

Claim Objections

2. Claim objections have been overcome.

Response to Arguments

3. Applicant's arguments with respect to claims 1-7 and 9-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. Rejections from the previous office action have been overcome.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Booth et al in view of "Understanding Fiber Optics" by Jeff Hecht.

Booth discloses an optical waveguide with a guiding lamina (1) of optical material (col. 5 line 28) bonded to a superstructure lamina (14) of optical material (col. 6 line 59). A second superstructure lamina (18) is also bonded to the guiding lamina. A light path (7) is defined by the guiding lamina. Booth also discloses modified (7) and unmodified optical regions (11) of the guiding lamina.

In regard to bonding the layers with direct interfacial bonding, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. It is well settled that the presence of process limitations in product claims, which limitations do not otherwise distinguish the current article over the prior art, cannot impart patentability to that product. (*In re Johnson*, 157USPQ 670, 1968) also (*In re Thorpe*, 227USPQ 964, 1985) Applicant also states in the specification that direct interfacial bonding is well known in the art (second sentence). Booth also does not disclose that the light guiding path is the unmodified region and the modified region is the boundary of this path. Jeff Hecht discloses a light path (intrinsic, lightly doped or less doped) that is unmodified and bounded by modified regions (figures 6.1b or 11.8).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the modified light path region of Booth an unmodified region bounded by modified regions. In a way this would be merely a reversal of the parts of Booth. Additionally, a motivation/suggestion for this combination could have been that modifying with doping technology is a tried and true way to create light paths.

Regarding claim 6, Jeff Hecht discloses indiffusion of dopant materials (fig. 11.3).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Galvanauskas et al teaches an electrically poled waveguide PPLN. Johanson teaches modified and unmodified waveguide parts. Kashyap teaches superstructure lamina and light guiding lamina. Webjorn et al teaches electrical poling. Gupta et al teaches modified and unmodified parts. Gopalan et al teaches electrical poling with waveguides. Hsiung teaches PPLN and waveguides. McCallion et al teaches superstructure lamina and light path lamina.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 703-305-0608. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Michael C. Zarroli
Examiner
Art Unit 2839



MCZ
July 23, 2002